

We claim:

*Sub-a 1*

1. An immortalized *Stat1<sup>-/-</sup>* mammalian cell line.
- 5 2. The cell line of Claim 1, wherein mammalian is murine or human.
- 10 3. The cell line of Claim 1, wherein said cell line was obtained by selection for spontaneously immortalized cells or by transformation.
- 15 4. The cell line of Claim 1, wherein the cells of said cell line are endothelial cells, epithelial cells, hematopoietic cells, bone marrow cells, kidney cells or liver cells.
5. The cell line of Claim 4, wherein said epithelial cells are fibroblast cells.
- 20 6. A method of producing a viral stock which comprises:
  - (a) infecting immortalized *Stat1<sup>-/-</sup>* mammalian cells with a virus;
  - 25 (b) culturing said infected cells under conditions and for a time to replicate said virus; and
  - (c) recovering the so-produced virus to provide said viral stock.
- 30 7. The method of Claim 6, wherein said virus is influenza virus, parainfluenza virus, measles virus, respiratory syncytial virus, a hepatitis virus, adenovirus, a herpes virus or vesicular stomatitis virus.
- 35 8. The method of Claim 6, wherein said mammalian cells are murine cells or human cells.

9. The method of Claim 6, wherein said cells are endothelial cells, epithelial cells, hematopoietic cells, bone marrow cells, kidney cells or liver cells.

5 10. The method of Claim 9, wherein said epithelial cells are fibroblast cells.

10 11. The method of Claim 6, wherein said virus replicates to a titer ranging from about  $10^2$  plaque forming units per milliliter to more than  $10^6$  plaque forming units per milliliter.

15 12. A method of producing a recombinant viral vector which comprises:

(a) infecting or transfecting immortalized *Stat1*<sup>-/-</sup> mammalian cells with said vector;  
(b) culturing said cells under conditions and for a time to replicate said vector; and  
(c) recovering the so-produced vector.

20 13. The method of Claim 12, wherein said vector is a DNA or RNA vector.

25 14. The method of Claim 12, wherein said vector is an adenovirus vector, a retrovirus vector or a sindbis virus vector.

15. The method of Claim 12, wherein said mammalian cells are murine cells or human cells.

30 16. The method of Claim 12, wherein said cells are endothelial cells, epithelial cells, hematopoietic cells, bone marrow cells, kidney cells or liver cells.

35 17. The method of Claim 16, wherein said epithelial cells are fibroblast cells.

18. A sensitive method for detecting the presence or absence of a virus in a sample which comprises:

(a) contacting immortalized *Stat1*<sup>-/-</sup> mammalian cells with said sample;

5 (b) culturing said cells under conditions and for a time to allow replication of said virus and, optionally, recovering said virus; and

(c) identifying said virus.

10 19. The method of Claim 18, wherein said sample is a clinical sample which comprises a body fluid, body tissue or other bodily material.

15 20. The method of Claim 18, wherein identifying is by immunoassay, polymerase chain reaction or nucleic acid hybridization using a viral-specific reagent.

20 21. The method of Claim 18, wherein said mammalian cells are murine cells or human cells.

25 22. The method of Claim 18, wherein the cells are endothelial cells, epithelial cells, hematopoetic cells, bone marrow cells, kidney cells or liver cells.

25 23. The method of Claim 22, wherein said epithelial cells are fibroblast cells.

30 24. The method of Claim 18, which further comprises quantitating the amount of virus in said sample.

30 25. A method of screening or testing for compounds or drugs having antiviral activity which comprises:

(a) treating immortalized *Stat1*<sup>-/-</sup> mammalian cells with a candidate compound;

35 (b) infecting said cells with a virus;

(c) culturing said cells under conditions and for a time to allow replication of said virus; and

(d) determining the amount of said virus produced relative to virus production in an untreated control cell line.

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26. The method of Claim 25, wherein said mammalian cells are treated with said compound prior to said infecting step, concurrently with said infecting step or after said infecting step.

27. The method of Claim 25, wherein said amount of virus is determined by a cytopathic effect on indicator cells or by plaque formation on indicator cells.

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28. The method of Claim 25, wherein said amount of virus is determined by immunoassay, a polymerase chain reaction or nucleic acid hybridization using a virus-specific reagent.

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29. The method of Claim 27, wherein said amount of virus is determined quantitatively.

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30. The method of Claim 28, wherein said amount of virus is determined quantitatively.

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31. The method of ~~Claim 25~~, wherein said virus is ~~influenza virus, parainfluenza virus, measles virus, respiratory syncytial virus, hepatitis virus, adenovirus, a herpes virus, vesicular stomatitis virus, adenovirus, a retrovirus or sindbis virus.~~

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32. The method of Claim 25, wherein said mammalian cells are murine cells or human cells.

33. The method of Claim 25, wherein said mammalian cells are endothelial cells, epithelial cells, hematopoietic cells, bone marrow cells, kidney cells or liver cells.

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34. The method of Claim 33, wherein said epithelial cells are fibroblast cells.

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